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## Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *07 May 2007*.
2a)☐ This action is **FINAL**.       2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *42-81* is/are pending in the application.
     4a) Of the above claim(s) *1-41* is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *42-81* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☒ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☒ objected to by the Examiner.
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
     a)☐ All   b)☐ Some * c)☐ None of:
       1.☐ Certified copies of the priority documents have been received.
       2.☐ Certified copies of the priority documents have been received in Application No. _____.
       3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
     * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *9/20/2007,8/25/2006*.
4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

## DETAILED ACTION

1.      This Office Action in response to the Application no. 10590742 filed on 8/25/2006

is entered.

Claims 1 – 41 have been canceled by Preliminary Amendment dated 11/13/2007.

Claims 42 – 81 are hence entered and presented for examination.

### *Information Disclosure Statement*

2.      The information disclosure statement (IDS) submitted on 9/20/2007, 8/25/2006

was filed, and the submission is in compliance with the provisions of 37 CFR 1.97.

Accordingly, the information disclosure statement is being considered by the examiner.

### *Drawings*

3.      The drawings are objected to because, regarding Figure 5a and Figure 5b, the

labeling for the signal flows are very confused. The labeled texts are overlapped with

the arrowed signal flow lines.  A small indicating-arrowed-line indicating the right

arrowed signal flow line associated with right text label should be included. Without

clear indication of the signal flows with correct labeled text, one of ordinary skill in the

art cannot comprehend the actual means and functions of the drawings. Corrected

drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office

action to avoid abandonment of the application. Any amended replacement drawing

sheet should include all of the figures appearing on the immediate prior version of the

sheet, even if only one figure is being amended. The figure or figure number of an

amended drawing should not be labeled as "amended." If a drawing figure is to be

canceled, the appropriate figure must be removed from the replacement sheet, and

where necessary, the remaining figures must be renumbered and appropriate changes

made to the brief description of the several views of the drawings for consistency.

Additional replacement sheets may be necessary to show the renumbering of the

remaining figures. Each drawing sheet submitted after the filing date of an application

must be labeled in the top margin as either "Replacement Sheet" or "New Sheet"

pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the

applicant will be notified and informed of any required corrective action in the next Office

action. The objection to the drawings will not be held in abeyance.


4.      The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5)

because they do not include the following reference sign(s) mentioned in the

description: regarding paragraph three, the disclosed subject matters "$A_{bis}$

(CDMA2000)" or "$I_{Ub}$ (UMTS) interface 103", other interfaces "A3", "A7", "A8", "A9" and

"A5" are disclosed in the specification, but they are not indicated clearly in Figure 1.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to

the Office action to avoid abandonment of the application. Any amended replacement

drawing sheet should include all of the figures appearing on the immediate prior version

of the sheet, even if only one figure is being amended. Each drawing sheet submitted

after the filing date of an application must be labeled in the top margin as either

"Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are

not accepted by the examiner, the applicant will be notified and informed of any required

corrective action in the next Office action. The objection to the drawings will not be held

in abeyance.

## *Specification*

5.      The disclosure is objected to because of the following informalities:

6.      The arrangement of the specification is improper because the section headings

are missing — that is, section headings of background of the Invention; Brief summary of

the Invention; Brief Description of the several views of the drawings; and Detailed

Description of the Invention are not indicated clearly in the specification. One of ordinary

skill in the art would have difficult time to figure out where in the specification is the

information of background of the Invention, and where in the specification the actual

brief summary and detailed description of the Invention are disclosed. Appropriate

correction is required.

7.      The disclosure is objected to because it contains an embedded hyperlink and/or

other form of browser-executable code, www.3gpp.org, www.3gpp2.org  in paragraph

two of page 2. Applicant is required to delete the embedded hyperlink and/or other form

of browser-executable code. See MPEP § 608.01.

8.      The lengthy specification has not been checked to the extent necessary to

determine the presence of all possible minor errors.  Applicant's cooperation is

requested in correcting any errors of which applicant may become aware in the

specification.

## *Claim Objections*

9.      Claims 47, 43 – 50, 52 – 53,  56 – 61, 64 - 66, 68 – 69, 75 – 76, 80 are objected

to because of the following informalities:

Regarding claim 47, the claimed subject matter "one or more of said parameters"

in line 3 should be corrected as "one or more of said sets of parameters".   Appropriate

correction is required.

Regarding claim 53, the claimed subject matter "said network" in line 1 should be

corrected as "said digital communications network".   Appropriate correction is required.

Regarding claims 43 – 50, 52 – 53, 75 – 76, 80, the indefinite article "A" of the

clause "A method" should be changed to definite article "The". Appropriate correction is

required.

Regarding claims 56 – 61, the indefinite article "A" of the clause "A system"

should be changed to definite article "The". Appropriate correction is required.

Regarding claims 64 - 66, 68 – 69, the definite article "The" should be

added/inserted in front of the clause "computer program code. Appropriate correction is

required.

### *Claim Rejections - 35 USC § 112*

10.     The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

Claims 42, 44, 51 – 53, 55 – 61, 62, 70 are rejected under 35 U.S.C. 112, second

paragraph, as being indefinite for failing to particularly point out and distinctly claim the

subject matter which applicant regards as the invention

Regarding claim 42, the claimed subject matter "writing sequential sets of parameters" in line 11 is not clear. It is not clear whether "sequential sets of parameters" refers to a new "sequential sets of parameters" or refers to "said sequential sets of parameters" as disclosed previously; the claimed subject matter "writing of a said set of parameters" in lines 16 and 17 is ambiguous. It is unclear whether the claimed subject matter "a said set of parameters" refers to a new set of parameters or refers to "said sets of parameters" as disclosed previously. Clarification and correction is required.

Regarding claim 44, the claimed subject matter "a said set of parameters" in line 2 is ambiguous. It is unclear whether the claimed subject matter "a said set of parameters" refers to a new set of parameters or refers to "said sets of parameters" as disclosed previously. Clarification and correction is required.

Regarding claim 51, the claim subject matter "said captured data as claimed in claim 41" is not clear. Claim 41 has been cancelled. It is not sure what claim the applicant refers to for the said captured data. Clarification and correction is required. Claims 52 and 53 are also rejected under 35 U.S.C. 112, second paragraph, since the claims are dependent upon claim 51.

Regarding claim 55, the claimed subject matter "said a first listener" in line 9 is ambiguous. It is unclear whether the claimed subject matter "said a first listener" refers to a new first listener, or refers to "said first listener" as disclosed previously. And the claimed subject matter "a said second listener" in line 13 is also ambiguous. It is unclear whether the claimed subject matter "a said second listener" refers to a new second listener, or refers to "said second listener" as disclosed previously. Clarification and

correction is required. Claims 56 and 61 are also rejected under 35 U.S.C. 112, second

paragraph, since the claims are dependent upon claim 55.

Regarding claim 62, the claim subject matter "the system of claim54" is very

ambiguous. Claim 54 is a method claim while claim 62 discloses claim 54 is a system

claim. Clarification and correction is required.

Regarding claim 70, the current claim, it is not clear where the preamble of the

claim starts and ends, and it not sure where the main body of claim begins and finishes.

Clarification and correction is required.


Claim 47 recites the limitation "one or more of said parameters" in line 3, and the

limitation "one or more of said sets of parameters" in line 4.  There is insufficient

antecedent basis for this limitation in the claim. Clarification and correction is required.

Claim 48 recites the limitation "one or more of said parameters" in line 3, and the

limitation "one or more of said sets of parameters" in line 9.  There is insufficient

antecedent basis for this limitation in the claim. Clarification and correction is required.

Claim 51 recites the limitation "said first data structure" in lines 6 and 8; the

limitation "said second data structure" in line 9.  There is insufficient antecedent basis

for this limitation in the claim. Clarification and correction is required.

Claim 52 recites the limitation "ones of sets of parameters" in line 2; the limitation

"said first FIFO data structure" and "said second data structure" in line 3.  There is

insufficient antecedent basis for this limitation in the claim. Clarification and correction is

required.

## *Claim Rejections - 35 USC § 101*

11.    35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

12.    Claims **42**, 43, 44, 45, 46, 47, 48, 49, 50, **51**, 52, 53, 63, 64, 65, 66, 67, 68, 69, **70, 72, 74,** 75, 76, **79, 80**  are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim(s) **42**, 43, 44, 45, 46, 47, 48, 49, 50, **51**, 52, 53, 63, 64, 65, 66, 67, 68, 69, **70, 72, 74,** 75, 76, **79, 80**  is/are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention.  While the claims recite a series of steps or acts to be performed, a statutory "process" under 35 U.S.C. 101 must (1) be tied to particular machine, or (2) transform underlying subject matter (such as an article or material) to a different state or thing. See page 10 of In Re Bilski 88 USPQ2d 1385. The instant claims are neither positively tied to a particular machine that accomplishes the claimed method steps nor transform underlying subject matter, and therefore do not qualify as a statutory process.

13.    Claims 54, 62, **63**, 64, 65, 66, **67**, 68, 69, 71, 73, 77, 78, 81 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Regarding claims 54, 62, **63**, 64, 65, 66, **67**, 68, 69, 71, 73, 77, 78, 81, the claims are merely a program claim, per se. Computer programs claimed as computer listings per se, i.e., the descriptions or expressions of the programs, are not physical "things." They are neither computer components nor statutory processes, as they are not "acts"

being performed. Such claimed computer programs do not define any structural and

functional interrelationships between the computer program and other claimed elements

of a computer which permit the computer program's functionality to be realized. In

contrast, a claimed computer-readable medium encoded with a computer program is a

computer element which defines structural and functional interrelationships between the

computer program and the rest of the computer which permit the computer program's

functionality to be realized, and is thus statutory. See Lowry, 32 F.3d at 1583-84, 32

USPQ2d at 1035. Accordingly, it is important to distinguish claims that define

descriptive material per se from claims that define statutory inventions.

14.     Claims 54, 62, **63**, 64, 65, 66, **67**, 68, 69, 71, 73, 77, 78, 81 are further rejected

under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject

matter.

Regarding claims 54, 62, **63**, 64, 65, 66, **67**, 68, 69, 71, 73, 77, 78, 81, the claims

are claiming "electrical signals" Signals is directed to non-statutory subject matter. It has

been disclosed and defined clearly on page 17, third and fourth paragraphs "The skilled

person will understand that the above described methods and systems will generally be

implemented using computer program code thus the invention also provides such

**computer program code, optionally on a carrier**, and also computer systems

including this code. The code may be written in any conventional programming

language, for example Visual C++ or a lower level language, and may be distributed

between a plurality of coupled components in communication with one another, for

example in a distributed net, network-based computer system. In preferred

arrangements the code comprises a number of separate, communicating code modules

rather than a single large program, for ease of maintenance.

Embodiments of the above-described methods may be implemented on standard

computer hardware by installing software embodying aspects of the invention. A data

carrier carrying the program code may comprise a disk such a CD - or DVD-ROM,

programmed memory such as read only memory (firmware) or **a data carrier such as**

**an optical or electrical signal carrier**, for example for downloading a code module

from an FTP (file transfer protocol) site".

### *Claim Rejections - 35 USC § 102*

15.    The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

16.    Claims 42 – 52, 54, 62, 71, 73, 77, 81, 55 – 61, 63, 64, 67 – 69, 72, 74 – 76 are

rejected under 35 U.S.C. 102(e) as being anticipated by Alexander et al. (US

20030037190 A1).

**Regarding claim 42,** Alexander et al. disclose a method of storing data captured

from a digital communications network, for processing, said captured data comprising a

stream of messages having message parameters, said stream of messages comprising

messages of a plurality of communications sessions *(Fig. 1, Fig. 3, paras. [0030],*

*[0047])*, the method comprising: inputting data from said stream of messages *("one or more input streams"; para. [0030])*; writing, for sequential ones of said stream of messages, sequential sets of parameters into a first FIFO (first-in first out) data structure, at an entry point of said first FIFO data structure *("sequence required for writing data into ..."; paras. [0079], [0081], Fig. 7)*; reading said sequential sets of parameters from an exit point of said first FIFO data structure *("generates the special sequence of addresses that causes the data to be read out..."; paras. [0079], [0082])*; and writing sequential sets of parameters read from said first FIFO data structure into a second data structure *(para. [0031], [0060],[0067], [0068], Fig. 4, Fig. 5)*; and wherein said entry point and said exit point are separated by a first data structure length *("head pointer", "tail point"; paras. [0066], [0065])*; and wherein said first data structure length has a predetermined minimum value defined in terms of a number of said sets of parameters and/or a time between said writing of a said set of parameters into said first data structure and said reading of a said set of parameters from said first data structure *(paras. [0083]- [0090], [0094])*.

**Regarding claim 43,** Alexander et al. disclose a method claimed wherein said second data structure comprises a FIFO data structure *(para. [0068])*.

**Regarding claim 44,** Alexander et al. disclose a method claimed wherein said length defines a predetermined minimum time between a said set of parameters being written into and read from said first FIFO data structure *("given instant in time"; para. [0142])*.

**Regarding claim 45,** Alexander et al. disclose a method claimed wherein a message rate of said stream of messages varies, and wherein said first FIFO data structure stores a variable number of said sets of parameters *(Abstract, paras. [0033], [0034], Fig. 1, Fig. 2 Fig. 6).*

**Regarding claim 46,** Alexander et al. disclose a method claimed comprising effectively moving said captured data through a plurality of chained FIFO data structures at least some of which have a respective predetermined minimum length *(paras. [0083], [0084]).*

**Regarding claim 47,** Alexander et al. disclose a method claimed wherein at least one of said first and second data structures includes a last value data store to store a previous value of one or more of said parameters, the method further including updating said last value data store when one or more said sets of parameters is written into said first FIFO data structure *(para. [0068]).*

**Regarding claim 48,** Alexander et al. disclose a method claimed wherein at least one of said first and second data structures includes a plurality of said last value data stores to store a plurality of most recent previous values of one or more of said parameters for a corresponding plurality of said communications sessions, the method further comprising: identifying a communications session to which a said set of parameters belongs; and updating a last value data store for said communications session when one or more said sets of parameters is written into said first FIFO data structure *(paras. [0068], [0144]).*

**Regarding claim 49,** Alexander et al. disclose a method claimed wherein said identifying comprises reading parameter data from said first data structure and writing

session identification data into said first data structure, wherein said second data structure includes said plurality of least value data stores, and wherein said updating a last value data store for said communications session includes reading said session identification data to identify a said last value data store to update *(paras. [0068], [0145], [0146]).*

**Regarding claim 50,** Alexander et al. disclose a method claimed wherein said first and second data structures each comprise a sequential plurality of storage blocks, each storage block having a plurality of storage elements, one for each of a superset of said sets of parameters comprising a set of all parameters selected for storage *(paras. [0114] - [0126]).*

**Regarding claim 51,** Alexander et al. disclose a method of processing data captured from a digital communications network using first and second processing operations, said second processing operation being dependent upon a result of said first processing operation, a result of said first processing operating requiring a minimum delay for validation *(Fig. 1, Fig. 3, paras. [0030], [0047], [0112], [0113], Fig. 10),* the method comprising storing said captured data as claimed in claim 41 and in parallel *(Fig. 1, Fig. 3, paras. [0030], [0047]),*: reading data from said first data structure, operating on said read data using said first processing operation *("generates the special sequence of addresses that causes the data to be read out..."; paras. [0079], [0082]),* and writing a result of said first processing operation to said first data structure *("sequence required for writing data into ..."; paras. [0079], [0081], Fig. 7);* and reading data from said second data structure, and operating on said read data using said second processing operation *(paras. [0079], [0082]),*.

**Regarding claim 52,** Alexander et al. disclose a method claimed further comprising combining and/or selectively discarding ones of said sets of parameters between reading from said first FIFO data structure and writing to said second data structure *(para. [0060]).*

**Regarding claims 54, 62, 71, 73, 77, 81,** Alexander et al. disclose a carrier carrying computer program code to, when running, implement the method claimed *("a bus used to transport", "software"; Fig. 3, paras. [0047], [0157]).*

**Regarding claim 55,** Alexander et al. disclose a system for processing data captured from a digital communications network to provide output data *(Fig. 1, Fig. 2, Fig. 13, paras [0030], [0077]),* the system comprising: a data pipe configured to store said captured data as a time-ordered sequence, said data pipe having at least a first region and a second region, said second region corresponding to earlier times than said first region *(paras. [0079], [0081], [0047]);* at least one first listener attached to said first region of said data pipe *(para. [0047] );* at least one second listener attached to said second region of said data pipe *(para. [0047] );* and wherein said a first listener is configured to read input data from said data pipe and to write first listener output data determined from said input data back to said data pipe, wherein at least some of said first listener output data is not valid until after a delay *(para. [0047], [0082], [0081]);* wherein a said second listener is configured to read second listener input data including said first listener output data from said data pipe, and to provide output data determined from said read second listener input data; and wherein a start of said second region of said data pipe is earlier than a start of said first region of said data pipe by at least said delay *(paras. [0065], [0066], [0068]).*

**Regarding claim 56,** Alexander et al. disclose a system claimed wherein said delay corresponds to a time interval; wherein a rate of captured data storage into said data pipe is variable; and wherein a length of said first region is variable *(paras. [0061], [0054], [0114], [0006], [0031], [0034]).*

**Regarding claim 57,** Alexander et al. disclose a system claimed comprising a plurality of said first listeners *(para. [0034]).*

**Regarding claim 58,** Alexander et al. disclose a system claimed wherein said first listener output data from one or more of said first listeners is dependent upon first listener output data from one or more others of said first listeners thereby defining a first listener dependency; and wherein said first listeners are configured to operate in accordance with said first listener dependency *(paras. [0034], [0042], [0043], [0044]).*

**Regarding claim 59,** Alexander et al. disclose a system claimed wherein said captured data comprises a stream of messages having message parameters and including messages of a plurality of communications sessions, at least some of said messages including session-identifying parameters *(paras. [0045], [0046]).*

**Regarding claim 60,** Alexander et al. disclose a system claimed wherein said at least one first listener includes a listener to identify a said session and to write session identity data to said data pipe *(para. [0057]).*

**Regarding claim 61,** Alexander et al. disclose a system claimed comprising a plurality data buckets associated with at least one of said first and second data pipe regions, each bucket corresponding to a said communications session and being configured to store one or more previous values of said message parameters for a said session *(Fig. 5, paras. [[0064]- [0067]).*

**Regarding claim 63,** Alexander et al. disclose computer program code for

processing data captured from a digital communications network, said captured data

comprising a stream of messages, ones of said messages including message

parameters, said stream of messages comprising messages of a plurality of

communications sessions *("software and/or firmware"; Fig. 1, Fig. 3, paras. [0030],*

*[0047], [0157])*, the code comprising: a first FIFO module having an input for receiving

message parameter data from said stream of messages and an *output ( paras. [0053],*

*[0054], Fig. 2);* a second FIFO module having an input coupled to said first FIFO module

output *(paras. [0053], [0054], Fig. 2)*; and wherein said message stream has a variable

rate and wherein said first FIFO module is configured to guarantee a time delay

between said first FIFO input and said first FIFO output of at least a minimum value

*(Fig. 2, Fig. 3, Fig. 4, paras. [0061], [0112])*.

**Regarding claim 64,** Alexander et al. disclose computer program code as

claimed further comprising a first data processing module coupled to said first FIFO

module to read data from and to write processed data to said first FIFO module, and a

second data processing module coupled to said second FIFO module to read data from

said second FIFO module, wherein said second data processing module is configured

to read said processed data from said first data processing module, and wherein said

processed data is only valid after at least said minimum time delay value *(Fig. 2, Fig. 3,*

*Fig. 4, Fig. 7, paras. [0081], [0082], [0112])*.

**Regarding claim 67,** Alexander et al. disclose computer program code, for

processing data captured from a digital communications network, said captured data

comprising a stream of messages having message parameters, said stream of

messages comprising messages of a plurality of communications sessions *("software and/or firmware"; Fig. 1,Fig. 2, Fig. 3, paras. [0030], [0047], [0157])*, the code comprising: a first FIFO module having an input for receiving message parameter data from said stream of messages and an output *(paras. [0053], [0054], Fig. 2)*; a second data processing module, in particular a FIFO module, having an input coupled to said first FIFO module output *(paras. [0053], [0054], Fig. 2*; and a data culling module coupled between said first FIFO output and said second data processing module input to reduce a rate of data processed by said second data processing module compared with said first FIFO module *(paras. [0053], [0054], [0057], [0058], Fig. 2)*.

**Regarding claim 68,** Alexander et al. disclose computer program code claimed further comprising a message labelling module coupled to said first FIFO module to label messages for culling by said data culling module *(paras. [0053], [0054], Fig. 2)*.

**Regarding claim 69,** Alexander et al. disclose computer program code claimed further comprising a session discrimination module, and a plurality of storage modules responsive to said discrimination module each to selectively store message parameters for a said communication session *(para. [0068], [0069])*.

**Regarding claim 72,** Alexander et al. disclose a method of defining a data storage structure, the data storage structure comprising one or more FIFO structures coupled in series, at least one of which has a guaranteed minimum length, one or more data processing modules being couplable to each said FIFO structure to receive data from the structure *(Fig. 1, Fig. 2, Fig. 3, paras. [0030], [0047])*, the method comprising: inputting a required parameter set *("one or more input streams"; para. [0030])*; determining a set of data processing modules required to provide said required

parameter set, one or more of said modules having a minimum required time for a valid

output, others of said modules being dependent upon a said valid output *(para. [0050],

[0142])*; and positioning said data processing modules on a said data storage structure

to define a said structure in which a said FIFO with a guaranteed minimum length is

defined by a said module with a minimum output validation time, and a subsequent

series coupled FIFO is defined by a said module dependent upon said valid output

*(paras. [0141], [0142])*.

      **Regarding claim 74,** Alexander et al. disclose a method of storing data captured

from a digital communications network for processing, said captured data comprising a

stream of messages having message parameters, said stream of messages comprising

messages of a plurality of communications sessions *(Fig. 1, Fig. 2, Fig. 3, paras. [0030],

[0047])*, the method comprising: inputting a said message of said stream *("one or more

input streams"; para. [0030])*; writing a set of parameters from the message into a FIFO

data structure identifying a communications session to which the message belongs

*("sequence required for writing data into ..."; paras. [0079], [0081], Fig. 7*; and updating

a last value data store associated with the communications session with parameters of

a previous message of the session *(paras. [0068], [0083]-[0090])*.

      **Regarding claim 75,** Alexander et al. disclose a method of processing data

stored, the method comprising determining, for a said communications session, a

current value and a last value of one or more of said parameters, from a current

message and a said last value data store, and processing said current and last value to

provide an output value *(paras. [0068], [0083]-[0090])*..

**Regarding claim 76,** Alexander et al. disclose a method of processing data wherein said communications session involves an entity of said network, and wherein said output value comprises an estimated state of said entity *(paras. [0068], [0069]).*

**Regarding claim 78,** Alexander et al. disclose computer program code for storing data captured from a digital communications network for processing, said captured data comprising a stream of messages having message parameters, said stream of messages comprising messages of a plurality of communications sessions *("software and/or firmware"; Fig. 1,Fig. 2, Fig. 3, paras. [0030], [0047], [0157]),* the code comprising: a buffer module to sequentially store said messages *(para. [0065]);* a discriminator module to associate said message with a communications session *(paras. [0068], [0069]);* and a bucket module, responsive to said discriminator module to store a most recent previous value for one or more of said message parameters for each of a plurality of said communications sessions *(Fig. 5, para. [0071]).*

**Regarding claim 79,** Alexander et al. disclose a method of modelling a plurality of communications sessions or network entities substantially in parallel using data captured from a digital communications network, said captured data comprising a stream of messages having message parameters, said stream of messages comprising messages of a plurality of communications sessions, a said communications session comprising messages communicated by or to a said network entity *(Fig. 1, Fig. 2, Fig. 3, paras. [0030], [0047]),* the method comprising: storing, for each said session or entity, a most recent previous value for a parameter set comprising one or more of said parameters *(paras. [0079], [0081], Fig. 7 );* determining, for a current message, a communications session or entity to which the message belongs; determining one or

more current parameter values from said current message *(paras. [0064], [0065])*;

updating a state model for said communications session or entity to which the message

belongs using said one or more current values and said most recent previous parameter

set value for said communications session or entity; updating said most recent previous

value parameter set using said one or more current parameter values *(paras. [0068),*

*[0069])*; and repeating said determining and updating to model said plurality of

communications sessions or network entities using a parallel bank of said state models,

one for each said session or entity *(paras. [0068), [0069], [0071])*.

**Regarding claim 80,** Alexander et al. disclose a method claimed wherein said

plurality of network entities comprise a plurality of instantiations of a single type of

network entity *(paras. [0070], [0071])*.

## *Claim Rejections - 35 USC § 103*

17.    The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

18.    Claims 53, 65, 66, 70 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Alexander et al. (US 20030037190 A1) in view of Choi (US 20040085982 A1).

**Regarding claim 53,** Alexander et al. do not disclose explicitly a method claimed

wherein said network comprises a digital mobile phone network, and wherein said

messages selectively discarded messages comprise measurement messages *(Fig. 1,*

*paras. [0004], [0017]).*

Choi in the same field of endeavor teaches a method claimed wherein said

network comprises a digital mobile phone network, and wherein said messages

selectively discarded messages comprise measurement messages *(Fig. 1, paras.*

*[0004], [0017], [0098]).*

At time the invention was made it would have been obvious to a person of

ordinary skill in the art to modify the teachings of Alexander et al. to include the features

of a method claimed wherein said network comprises a digital mobile phone network,

and wherein said messages selectively discarded messages comprise measurement

messages as taught by Choi. One of ordinary skill in the art would be motivated to do so

for providing a system and method for controlling queuing of data transmitted in a

communication system *(as suggested by Choi, see para. [0002]).*

**Regarding claim 65,** Alexander et al. disclose computer program code

*("software and/or firmware"; Fig. 1, Fig. 3, paras. [0030], [0047], [0157])* except wherein

said processed data includes session discrimination data.

Choi in the same field of endeavor teaches wherein said processed data includes

session discrimination data *("data is discard"; Fig. 1, paras. [0004], [0017], [0098]).*

At time the invention was made it would have been obvious to a person of

ordinary skill in the art to modify the teachings of Alexander et al. to include the features

of wherein said processed data includes session discrimination data as taught by Choi.

One of ordinary skill in the art would be motivated to do so for providing a system and

method for controlling queuing of data transmitted in a communication system *(as suggested by Choi, see para. [0002])*.

**Regarding claim 66,** Alexander et al. disclose computer program code claimed wherein said second FIFO module has a plurality of associated data storage modules, and wherein said code is configured to store message parameter data in a selected said data storage module *(Fig. 2, paras. [0053], [0054], [0055])*.

Alexander et al. do not disclose FIFO module has a plurality of associated data storage modules corresponding to a plurality of discriminated sessions, and wherein said code is configured to store message parameter data in a selected said data storage module responsive to said session discrimination data.

Choi in the same field of endeavor teaches FIFO module has a plurality of associated data storage modules corresponding to a plurality of discriminated sessions, and wherein said code is configured to store message parameter data in a selected said data storage module responsive to said session discrimination data *(Fig. 1, paras. [0004], [0017], [0098])*.

At time the invention was made it would have been obvious to a person of ordinary skill in the art to modify the teachings of Alexander et al. to include the features of FIFO module has a plurality of associated data storage modules corresponding to a plurality of discriminated sessions, and wherein said code is configured to store message parameter data in a selected said data storage module responsive to said session discrimination data as taught by Choi. One of ordinary skill in the art would be motivated to do so for providing a system and method for controlling queuing of data transmitted in a communication system *(as suggested by Choi, see para. [0002])*.

**Regarding claim 70,** Alexander et al. disclose a method of processing data

captured from a digital mobile communications network, the data comprising a stream of

messages relating to a plurality of entities of said network *(Fig. 1, Fig. 2, Fig. 3, paras.*

*[0030], [0047], Fig. 13)*, the method comprising identifying and labelling data; and

subsequently reading said labelling and culling said data *(paras. [0059], [0060], [0069])*,

except relating to unwanted messages.

Choi in the same field of endeavor teaches identifying and labelling data; and

subsequently reading said labelling and culling said data except relating to unwanted

messages *("data is discarded" interpreted as unwanted messages; Fig. 1, paras. [0004],*

*[0017], [0098])*.

At time the invention was made it would have been obvious to a person of

ordinary skill in the art to modify the teachings of Alexander et al. to include the features

of identifying and labelling data; and subsequently reading said labelling and culling said

data except relating to unwanted messages as taught by Choi. One of ordinary skill in

the art would be motivated to do so for providing a system and method for controlling

queuing of data transmitted in a communication system *(as suggested by Choi, see*

*para. [0002])*.

### Conclusion

19.     Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Andrew C. Lee whose telephone number is (571)272-

3131. The examiner can normally be reached on Monday through Friday from 8:30am -

5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (571) 272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Andrew C Lee/
Examiner, Art Unit 2419
<9/09/2009::4Qy09>

/Ayaz R. Sheikh/

Supervisory Patent Examiner, Art Unit 2419